

Photosynthesis - Concepts and Connections



- *Plants absorb solar energy from the sun, water from the soil, and carbon dioxide from the air.
 - *Plants cells have specialized organelles called **chloroplasts** where they use the solar energy and the water to make stored energy (like ATP).
 - *Plants use this energy and carbon from carbon dioxide to make sugar and the “waste” product oxygen is released into the atmosphere.
 - *They store the excess sugar as starch.
-

Cellular Respiration - Concepts and Connections



- * When you eat food, it is broken down into monomers by the digestive system and transported to all the cells of the body by your circulatory system.
- * When you breathe in, oxygen goes in and is transported around the body to all of your cells by the red blood cells in your circulatory system.
- * When the digested food reaches your cells where energy is needed, specialized organelles called **mitochondria**, use the monomers (like sugar) along with the oxygen you breathed in, to produce stored energy (ATP), the “waste product” carbon dioxide, water, and some heat.
- * The water is used elsewhere or urinated out, carbon dioxide is breathed out, the heat helps keep our body warm, and the stored energy (ATP) is used by your cells for all their chemical reactions that need energy.